

Listing of Claims:

Claims 1-122 (cancelled and withdrawn).

123. (new) An impact tool comprising:
- a shaft having a striking end and a working end; and
  - a shaped polymeric material to be impacted disposed adjacent to said striking end to avoid direct metal-to-metal contact,
- said shaped polymeric material having a striking end area of said polymeric material adjacent to said striking end and an impact end area to be impacted roughly opposite said striking end area,
- said shaped polymeric material being of sufficient cross-sectional area for transmitting impact upon the impact end area, of appropriate thickness through said cross-sectional area, and of sufficient modulus to enable greater than 75% impact effectiveness compared to a similar impact tool without said polymeric material disposed adjacent to said striking end.

124. (new) The impact tool according to claim 1, further comprising:
- said shaped polymeric material being selected to have the further characteristic of redistributing the sound frequency on impact by a driving force on said impact tool to lower frequency ranges than said impact tool without said shaped polymeric material so that resulting sound and vibration is of lower dB, and less harmful frequency ranges to humans.

125. (new) An impact tool comprising:
- a shaft having a striking end and a working end; and

a shaped polymeric material being a polymeric material to be impacted having a shape and disposed adjacent to said striking end to avoid direct metal-to-metal contact,

said shaped polymeric material having a striking end area of said polymeric material adjacent to said striking end and an impact end area to be impacted roughly opposite said striking end area, said shaped polymeric material being of sufficient cross-sectional area for transmitting impact upon the impact end area, of sufficient thickness through said cross-sectional area, and of sufficient modulus calculated according to the following formula:

said modulus times said cross-sectional area for transmitting impact upon the impact end area divided by said thickness through said cross-sectional area = X

X to be of a value to enable greater than 75% impact effectiveness compared to a similar impact tool without said polymeric material disposed adjacent to said striking end.

126. (new) An impact tool comprising:

a shaft having a striking end and a working end, said working end being a chisel having a decreased included angle from the standard 65-70 degree included angle; and,

a shaped polymeric material to be impacted disposed adjacent to said striking end to avoid direct metal-to-metal contact, said shaped polymeric material having a striking end area adjacent to said striking end and an impact end area to be impacted roughly opposite said striking end area, said shaped polymeric material being of sufficient cross-sectional area for transmitting impact upon the impact end area, of appropriate thickness through said cross-sectional area, and of sufficient modulus to enable greater than 75% impact effectiveness compared to a similar impact tool without said shaped

polymeric material and having a standard 65–70 degree included angle.

127. (new) The impact tool according to claims 123, 124, 125, and 126 further comprising:

said shaped polymeric material being shaped so that no edge or surface is presented having a radius of curvature of less than .02 inches.

128. (new) An impact tool comprising:

a shaft having a striking end and a working end; and  
a shaped polymeric material to be impacted disposed adjacent to said striking end to avoid direct metal-to-metal contact,

said shaped polymeric material having a striking end area of said polymeric material adjacent to said striking end and an impact end area to be impacted roughly opposite said striking end area,

said shaped polymeric material being a fiber-reinforced polyamide,

said shaped polymeric material being of sufficient cross-sectional area for transmitting impact upon the impact end area, of appropriate thickness through said cross-sectional area, and of sufficient modulus, and further being shaped so that no edge or surface is presented having a radius of curvature of less than .02 inches in order to maintain impact effectiveness while inhibiting failure of said shaped polymeric material upon impact.

129. (new) The impact tool according to claims 123, 124, 125, 126, or 128, further comprising:

said shaped polymeric material being selected from the group of polymeric materials reinforced by fiber or mineral.

130. (new) The impact tool according to claims 123, 124, 125, 126, or 128, further comprising:

said shaped polymeric material being at least one material selected from the group of polymers including polyamide, polyester, polyurethane, polypropylene, polycarbonate.

131. (new) The impact tool according to claims 123, 124, 125, 126, or 128, further comprising:

said shaped polymeric material being at least one polymeric material selected from the group of polymers including polyamide, polyester, polyurethane, polypropylene, polycarbonate, and

said shaped polymeric material being selected from the group of polymeric materials reinforced by fiber or mineral.

132. (new) The impact tool according to claims 123, 124, 125, 126, or 128, further comprising:

said shaped polymeric material being comprised of at least one polyamide.

133. (new) The impact tool according to claims 123, 124, 125, 126, or 128, further comprising:

said shaped polymeric material being comprised of at least Zytel® (made by DuPont Corp.) polyamide.

134. (new) The impact tool according to claims 123, 124, 125, 126, or 128, further comprising:

said shaped polymeric material being comprised of at least MINLON® (made by DuPont Corp.) polymeric material.

135. (new) The impact tool according to claims 123, 124, 125, 126, or 128, further comprising:

said shaped polymeric material being shaped to extend beyond the cross-sectional area of said impact end area.

136. (new) The impact tool according to claims 123, 124, 125, 126, or 128, further comprising:

said shaped polymeric material being at least partially surrounding by a grip, and said grip also partially encasing said shaft.

137. (new) The impact tool according to claims 123, 124, 125, 126, or 128, further comprising:

said shaped polymeric material being at least partially surrounded by a grip, and said grip having a flange for hand protection.

138. (new) The impact tool according to claims 123, 124, 125, 126, or 128, further comprising:

said impact tool having a second shaped polymeric material being shaped to extend beyond the cross-section area of said impact end area and having an aperture exposing said impact end area.

139. (new) The impact tool according to claims 123, 124, 125, 126, or 128, further comprising:

said impact tool having a second shaped polymeric material being shaped to extend beyond the cross-section area of said impact end area and having an aperture exposing said impact end area and said second shaped polymeric material being removable.

140. (new) The impact tool according to claims 123, 124, 125, 126, or 128, further comprising:

said second shaped polymeric material functioning as a cap and being composed of material inhibiting failure, including spalling failure.

141. (new) The impact tool according to claims 123, 124, 125, 126, or 128, further comprising:

said second shaped polymeric material functioning as a cap and being composed of material inhibiting failure, and said material inhibiting failure being selected from the group of polymeric materials reinforced by fiber or mineral.

142. (new) The impact tool according to claims 123, 124, 125, 126, or 128, further comprising:

said second shaped polymeric material functioning as a cap and being composed of material inhibiting failure, said

Appl. No.10/625,149

McCarty et al

Amendment dated April 14, 2005

Response to Office Action of October 14, 2004

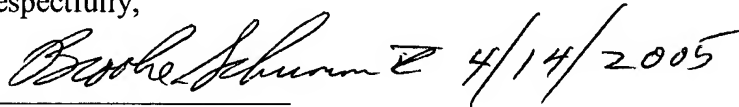
material inhibiting failure being selected from the group of  
ATAPRENE, HYTRIL, DELRIN, NYLON, POLYPROPYLENE or  
DACRON.

END OF CLAIMS AMENDMENT

Appl. No.10/625,149  
McCarty et al  
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Applicant believes that the application is now in position for allowance and the examiner is requested to examine and allow the application.

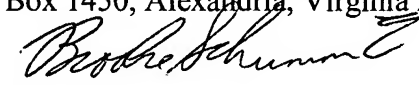
Respectfully,

 4/14/2005

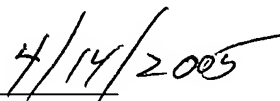
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**CERTIFICATE OF SERVICE BY EXPRESS MAIL**

I certify that I caused the above Amendment, Fee of \$510.00 and a postcard to be sent this 14th day of April, 2005 by Express Mail Number EF 227265280 US with sufficient postage addressed to the Assistant Commissioner of Patents, Mail Stop Patent Application, P.O. Box 1450, Alexandria, Virginia 22313-1450.



Date



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